

## ENGLISH ABSTRACT FOR DE2018353 (FR2043403)

1 / 1 WPAT - ©Thomson Derwent

**Accession Nbr :**

1970-79352R [43]

**Title :**

Electroluminescent device for converting in - fr red radiation visible radiation

**Derwent Classes :**

L03 U14 X25 X26

**Patent Assignee :**

(AMTT ) WESTERN ELECTRIC CO INC

**Nbr of Patents :**

8

**Nbr of Countries :**

7

**Patent Number :**

DE2018353 A 0 DW1970-43 \*

NL7005417 A 0 DW1970-43

FR2043403 A 0 DW1971-17

US3621340 A 0 DW1971-49

CA-908970 A 0 DW1972-38

GB1317731 A 0 DW1973-21

DE2018353 B 0 DW1973-26

JP73042392 B 0 DW1973-50

**Priority Details :**

1969US-0816764 19690416

**IPC s :**

H05B-033/16

**Abstract :**

DE2018353 A

Infra red radiation falling onto a crystalline phosphor is converted into visible radiation without the application of a voltage.

The phosphor is a stoichiometric mixture of oxyhalide crystals of the form M<sub>1</sub>R<sub>4</sub>, M<sub>2</sub>X<sub>2</sub> where M<sub>1</sub> is a monovalent metal and M<sub>2</sub> is a divalent metal. The mixture must contain 5% of the cation Yb<sup>+++</sup>. When the phosphor is irradiated with infra red containing the absorption spectrum of ytterbium, visible light is emitted. The conversion uses two energy levels in the phosphor layer, producing different emission waves. The phosphor mixture can also contain the ion pairs YbEr, YbHo and YbErHo all as trivalent cations where the erbium is present at 1/16% and the holmium as 1/50% of the unit cell group.

**Manual Codes :**

CPI: L03-D04

**Update Basic :**

1970-43

**Update Equivalents :**

1970-43; 1971-17; 1971-49; 1972-38; 1973-21; 1973-26; 1973-50

English Abstract for DE2018353 (FR2043403)

Abstract :

DE2018353 A

Infra red radiation falling onto a crystalline phosphor is converted into visible radiation without the application of a voltage.

The phosphor is a stoichiometric mixture of oxyhalide crystals of the form M<sub>1</sub>R<sub>4</sub>, M<sub>2</sub>X<sub>2</sub> where M<sub>1</sub> is a monovalent metal and M<sub>2</sub> is a divalent metal. The mixture must contain 5% of the cation Yb<sup>+++</sup>. When the phosphor is irradiated with infra red containing the absorption spectrum of ytterbium, visible light is emitted. The conversion uses two energy levels in the phosphor layer, producing different emission waves. The phosphor mixture can also contain the ion pairs YbEr, YbHo and YbErHo all as trivalent cations where the erbium is present at 1/16% and the holmium as 1/50% of the unit cell group.